3. (Amended) An apparatus according to claim 2, wherein said tubular barrel has a sectional polygonal shape with respect to the rotational axis having at least three corners at internal angles of 30° to 100°, said corners being provided as said slide stops.

4. (Amended) An apparatus according to claim 3, wherein said tubular barrel has a sectional shape of a regular triangle with respect to the rotational axis.

5. (Amended) An apparatus according to claim 3, wherein said tubular barrel has a sectional shape of a square with respect to the rotational axis.

6. (Amended) An apparatus according to claim 2, wherein said tubular barrel has a sectional shape of a rhombus with respect to the rotational axis.

7. (Amended) An apparatus according to claim 1, wherein said tubular barrel has a sectional shape of a convex curve in a part of said sectional shape with respect to the rotational axis.

8. (Amended) An apparatus according to claim 7, wherein said tubular barrel has a sectional shape of an ellipse or convex lens with respect to the rotational axis.

10. (Amended) An apparatus according to claim 9, wherein said protrusion is provided at an angle of 30° to 100° to a tangential line in a direction of rotation in the sectional shape with respect to the rotational axis of said tubular barrel.

11. (Amended) An apparatus according to claim 9, wherein said protrusion is in any of a comb shape, a plate shape and a rod shape.

12. (Amended) An apparatus according to claim 9, wherein a number of said protrusion is one to seven.

13. (Amended) An apparatus according to claim 1, wherein said tubular barrel has an interior comprising a plurality of partitioned accommodating sections formed by one or more partitioning members provided perpendicular to the rotational axis of said tubular barrel.

14. (Amended) An apparatus according to claim 13, wherein said partitioning member is formed by a linear member.

15. (Amended) An apparatus according to claim 1, wherein said tubular barrel has an interior comprising a plurality of partitioned chambers formed by one or more partitions parallel to the rotational axis of said tubular barrel.

16. (Amended) An apparatus according to claim 15, wherein said partitioned chamber is in a sectional shape with respect to the rotational axis having at least one corner at an internal angle of 30° to 100°, said corner being provided as said slide stop.

17. (Amended) An apparatus according to claim 13 or 15, wherein work pieces are accommodated in one of said partitioned accommodating sections and partitioned chambers on a one-to-one basis.

18. (Amended) An apparatus according to claim 1, wherein said porous peripheral surface is a mesh shape peripheral surface.

19. (Amended) An apparatus according to claim 1, wherein said porous peripheral surface is a slit shape peripheral surface.

20. (Amended) An apparatus according to claim 1, wherein a plurality of tubular barrels is annularly supported at positions circumferentially outward of the rotational axis of a support member rotatable about the rotational axis in a horizontal direction.

23. (Amended) A dry surface treating method for treating a work piece, comprising treating said workpiece by using said dry surface treating apparatus according to claim 1.

24. (Amended) A dry surface treating method according to claim 23, wherein said work piece is a rare earth metal-based permanent magnet in a plate or bow shape.

25. (Amended) A dry surface treating method according to claim 23, wherein said work piece is treated while having its surfaces inverted at said slide stop as a fulcrum.

26. (Amended) A rare earth metal-based permanent magnet comprising a surface treated by said dry surface treating method according to claim 23.

Please add new claim 27 as follows:

27. (New) A dry surface treating apparatus comprising, within a treating chamber, a surface-treating material supply section and a tubular barrel having a porous peripheral surface for accommodating a work piece, to treat a surface of the work piece while rotating said tubular barrel horizontally arranged about a horizontal rotational axis, wherein said tubular barrel has a slide stop for stopping a slide of the accommodated work piece along an inner peripheral surface of said tubular barrel due to rotation of said tubular barrel, and a surface-treating material supply section is provided outside the tubular barrel.